



National Agromet Advisory Service Bulletin
Based on
Extended Range Weather Forecast (ERFS)

Validity for 20th July to 02nd August 2018

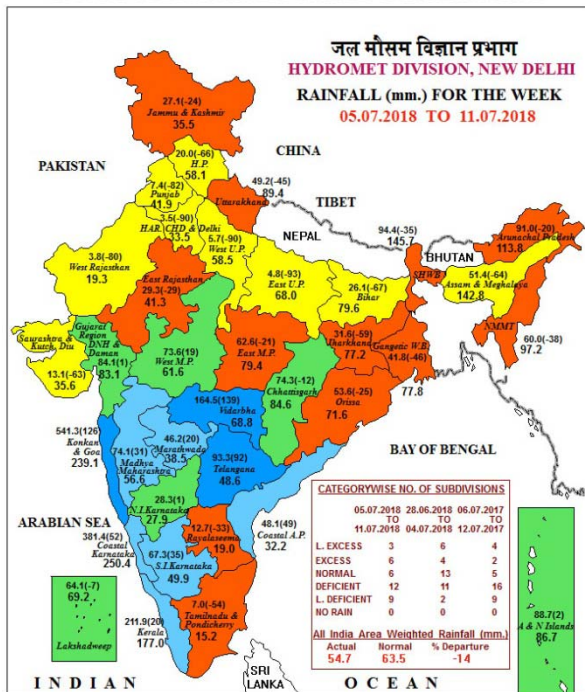
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India Meteorological Department

Realized Rainfall and Extended Range Forecast (Rainfall and Temperatures)

Realized Rainfall (5th to 18th July 2018)

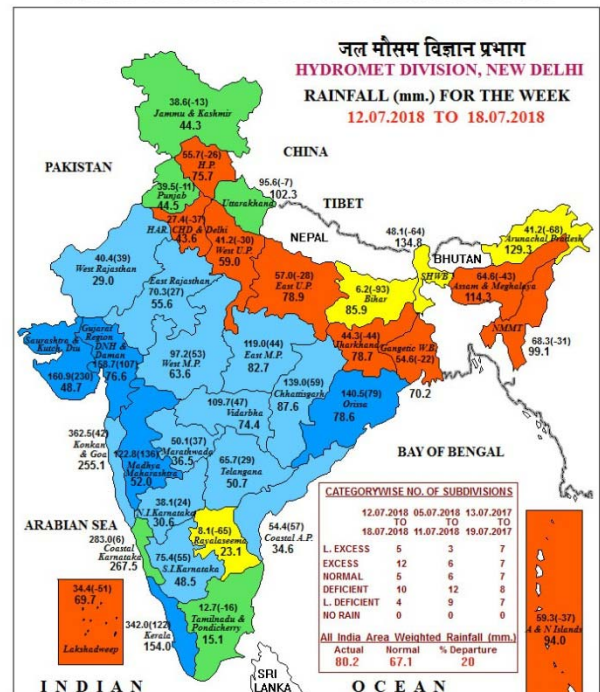
भारत मौसम विज्ञान विभाग INDIA METEOROLOGICAL DEPARTMENT



LEGEND: L. EXCESS (>+60% OR MORE) EXCESS (+20% TO +59%) NORMAL (+19% TO -19%) DEFICIENT (-20% TO -59%) L. DEFICIENT (-60% TO -99%) NO RAIN (-100%) NO DATA

NOTES:
 (a) Rainfall figures are based on operational data.
 (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
 Percentage Departures of Rainfall are shown in Brackets.

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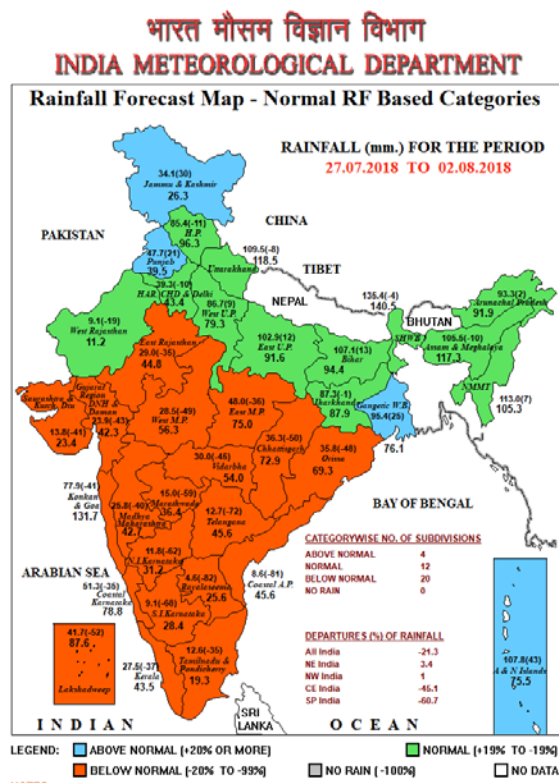
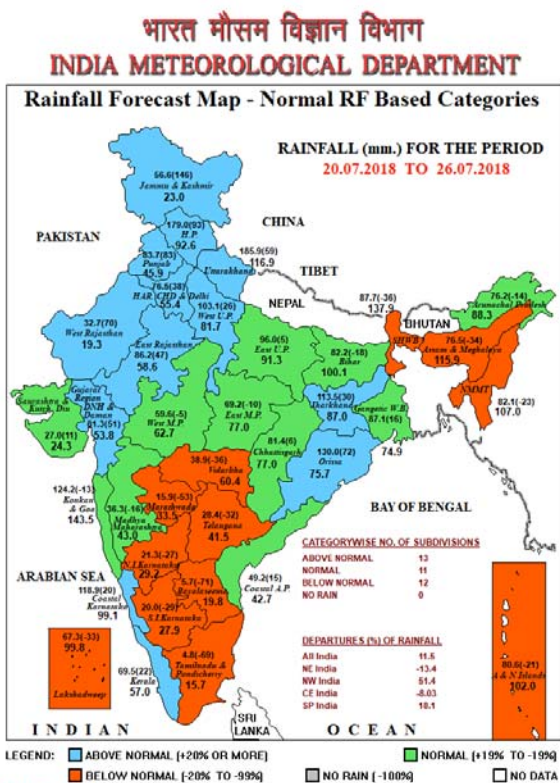
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NOTES:
 (a) Rainfall figures are based on operational data.
 (b) Small figures indicate actual rainfall (mm.), while bold figures indicate Normal rainfall (mm.)
 Percentage Departures of Rainfall are shown in Brackets.

- Normal or above normal rainfall occurred during last two weeks in Chhattisgarh, Maharashtra & Goa, Gujarat Region, West Madhya Pradesh, Telangana, Coastal Andhra Pradesh, Karnataka and Kerala.
- Normal or above normal rainfall occurred in either of the last two weeks in Jammu & Kashmir, Uttarakhand, Punjab, Rajasthan, Odisha, Saurashtra & Kutch, East Madhya Pradesh, Tamil Nadu Andaman & Nicobar Islands and Lakshadweep
- Below normal rainfall occurred in both the weeks in Himachal Pradesh, Haryana, Chandigarh & Delhi, Uttar Pradesh, Bihar, Jharkhand, West Bengal & Sikkim, Arunachal Pradesh, Assam & Meghalaya, Nagaland, Manipur, Mizoram & Tripura and Rayalaseema.

Extended Range Forecast System

Rainfall forecast maps for the next 2 weeks (Initial Condition – 18 July)
(20th July to 2nd August 2018)



Extended Range Rainfall Forecast

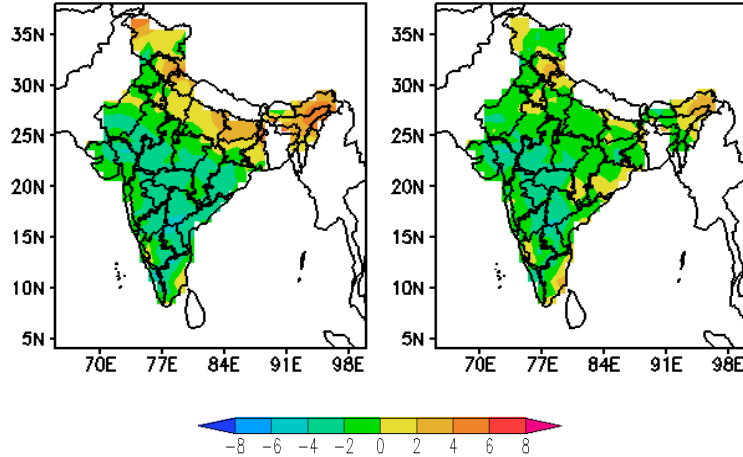
- **Week 1 (20.07.2018 to 26.07.2018):** Monsoon rainfall over Northwestern and eastern parts of India and adjoining central India will be above normal. The Southern peninsula and north India will receive slightly below normal. However, rainfall of the country as a whole is expected to be slightly above normal during the week 1.
- **Week 2 (27.07.2018 to 02.08.2018):** Subdued rainfall activity is expected during this period with below normal rainfall over central parts of India and southern peninsula during week 2. However, the current deficient rainfall belt of Uttar Pradesh and Bihar may get slightly above normal rainfall during the week.

**Maximum and Minimum temperature anomaly ($^{\circ}\text{C}$) forecast for next 2 weeks (IC – 18 July)
(20th July to 2nd August 2018)**

MME Bias Corrected Tmax Anomaly (Deg)

(Week1: 20Jul–26Jul)

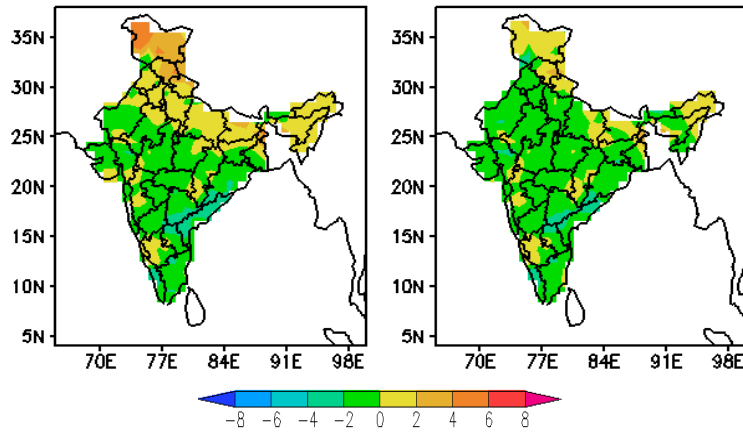
(Week2: 27Jul–02Aug)



MME Bias Corrected Tmin Anomaly (Deg)

(Week1: 20Jul–26Jul)

(Week2: 27Jul–02Aug)



Tmax (Maximum Temperature)

- **Week 1 (20.07.2018 to 26.07.2018) and Week 2 (27.07.2018 to 02.08.2018):** Mostly normal to below normal Tmax likely to prevail over most of the subdivisions of the country.

Tmin (Minimum Temperature)

- **Week 1 (20.07.2018 to 26.07.2018) and Week 2 (27.07.2018 to 02.08.2018):** Mostly normal to below normal Tmin likely to prevail over most of the sub divisions of the country.

Strategic Agricultural Planning based on rainfall during next two weeks till 02nd August 2018

Agromet Advisories

Kerala

Rainfall Situation

Rainfall received during the period of 01 June to 19 July 2018 over Kerala is 1359 mm, which is 22% excess than normal. The extended range weather forecast provided for next two weeks [week-1 (20-26 July 2018) and week-2 (27 July - 02 Aug 2018)] is above normal and below normal, respectively. Flood condition prevails in Kottayam, Alappuzha and Idukki districts.

- Rice is at tillering stage. Due to the prevalence of cloudy weather, there is chance for leaf folder infestation. Use 2CC trichogramma cards per acre. Cut the cards into small pieces and fix in different parts of the field. If the attack is severe, spray Flubendiamide 1ml per 10 litre of water or Chlorantraniliprole 3ml per 10 litre of water, during week-2.
- Coconut: Bud rot disease is seen in coconut palm due to continuous rainfall and water logging. Small-perforated sachets containing 2 g of Mancozeb may be tied to the top of leaf axil. When it rains, a small quantity of the fungicide is released from the sachets to the leaf base thus protecting the palm.
- Ginger: Ensure adequate drainage to prevent soft rot. To control soft rot, drench the soil with 1% Bordeaux mixture/0.3% Mancozeb. Apply green leaf mulching to prevent soil erosion and to increase the organic matter content in the soil.
- Cardamom: It is ideal time for main field planting (week-2).

Karnataka

Rainfall Situation

Rainfall received during the period of 01 June to 19 July 2018 over different meteorological sub-divisions of Karnataka viz, North Interior Karnataka (NIK): 181 mm (1% deficit), South Interior Karnataka (SIK): 334 mm (21% excess) and Coastal Karnataka: 1784 mm (12% excess). The extended range weather forecast provided is below normal over all the subdivisions of the state during both weeks, except over Coastal Karnataka during week-1 (above normal).

South Interior Karnataka

- As the wind speed is high, provide staking to banana and vegetable crops to protect from uprooting. Also, postpone the spraying operation in Agriculture and Horticultural crops.
- Make use of farm pond water and this may be used for protective irrigation during the prevailing dry spell.
- Wherever, the long duration crops like pigeonpea, and castor has been sown, undertake earthing up.
- Recommended for medium to short duration crops like: ragi (Indaf-5 and 9, MR-6, GPU-28 and 48, ML-365), maize (Ganga, Deccan, Vijaya composite and Composite NAC), groundnut (JL-24, KCG-2, GBBD-4), cowpea (C-152, KM-5 and PKB-4 for vegetable purpose) and green gram (PS-16, PDM-84 & 178. Black gram: Karagao-3, T-9, Rashmi (LBG-625). When sufficient soaking rainfall is received, farmers can go for sowing.

North Interior Karnataka

- As soon as sufficient rainfall for sowing is received take up sowing of *kharif* crops like Black gram, Soybean, Maize, Bt. Cotton, Redgram, Bajra, Sesame and Groundnut (spreading) may be taken up.
- To make efficient use of available soil and water resources and to get higher returns, the following

intercropping systems can be taken up in light and medium black soils. Pearl millet + Groundnut (spreading) in 2:4 row proportion ; Pearl millet + Pigeonpea in 2:1 row proportion ; Groundnut (spreading) + Pigeonpea in 3:1 or 4:2 row proportion, Pigeonpea + Sesame in 1:2 or 2:4 row proportion.

- Vaccinate livestock against Foot and Mouth disease (FMD vaccination), Black Quarter disease (BC vaccination) and Haemorrhagic Septicaemia.

Andhra Pradesh

Rainfall received during the period of 01 June to 19 July 2018 over different meteorological sub-divisions of Andhra Pradesh is: Coastal Andhra Pradesh – 243 mm (24% excess) and Rayalaseema – 95 mm (20% deficit). The extended range weather forecast provided is below normal over both the subdivisions of the state during both weeks, except over Coastal AP during week-1 (normal).

- Farmers of East and West Godavari districts were advised to drain out excess water due to continuous high rainfall from rice nurseries and maize, greengram, blackgram, sugarcane, cotton fields.
- Sowing of Rice nurseries and transplanting can be continued in Srikakulam, Vizianagaram, East and West Godavari, Krishna and Guntur districts under assured irrigation conditions.
- Farmers were advised to continue sowing of Mesta, Sesame, planting of sugarcane in North Coastal AP and Godavari, Krishna districts with the available soil moisture.
- Due to deficit rainfall during the week in Rayalaseema districts and Prakasam district; farmers need to wait until receipt of sufficient rainfall to take up sowing of rainfed crops.
- Farmers of Kadapa, Kurnool, Ananthapuramu districts are advised to take up sowing of rainfed groundnut only after receipt of sufficient rainfall. They are advised to treat the seed with Imidacloprid @ 2ml/kg and Tebuconazole @ 1g/kg of seed before sowing.
- Incidence of sucking pests were observed in cotton crop in Krishna, Ananthapuramu and Kurnool districts. Farmers are advised to take stem application with Monocrotophos (1:10) /Imidacloprid(1:20) ratio mixed with water for control of sucking pests.

Maharashtra

Rainfall Situation

Rainfall received during 01 June to 19 July 2018 over different meteorological sub divisions of the state viz., Konkan: 2063 mm (48% excess), Madhya Maharashtra: 377 mm (29% excess), Vidarbha: 493 mm (37% excess) and Marathwada: 288 mm (17% excess). The extended range weather forecast provided for next two weeks is: below normal over all the subdivisions of the state during both the weeks, except over Madhya Maharashtra and Konkan during week-1 (normal).

Marathwada

- To control infestation of leaf eating caterpillar in soybean, spray Profenofos 50 % @ 20 ml per 10 liter of water.
- To control root rot and wilt disease in cotton, drenching of Copper oxychloride @ 25 gm per 10 liter of water should be done.
- To control attack of stem borer in maize crop, soil application of Carbofuran 3 % @ 13 kg per acre should be done. Drain out excess amount of water from field.

Vidarbha

- Due to receipt of good rains in last week, areas not sown so far can go for sowing of crops without delay
- Early maturing varieties of soybean (JS 9560, JS 9305) may be sown up to 25 July. Seed treatment with Rhizobium and PSB each of @ 25 g and Trichoderma @ 5 g per kg of seed is advisable.
- Complete remaining sowing of pigeonpea, seed treatment with Rhizobium and PSB each of @ 25 g and Trichoderma @ 5 g per kg of seed is advisable.
- Intercropping systems include pigeon pea + soybean (1:2 / 2:4) or after every 6 or 9 rows of soybean, one row of pigeonpea may be sown.
- For delayed sowing of cotton, prefer recommended early varieties of *deshi* and American cotton with slightly higher (20-25% more) than recommended seed rate and reduce fertilizer dose by 25 % for cotton.
- Drain out excess water from waterlogged crop fields and for recovering from yellow patches of crops due to water logging, foliar spray of 1% urea is advisable.

Madhya Maharashtra

- Due to cloudy weather and rainfall, infestation of leaf eating caterpillar on vegetables and fruit crops is reported. It can be controlled by spraying of Chlorpyrifos/ Quinalphos/ Trizophos @ 15-20 ml + 10 ml water + 5 ml sticker.
- For protecting pomegranate orchard from oily spot and fungal leaf and fruit spots in mrig bahar variety of Pomegranate, spray bronopol 250 ppm (2.5 g/10 lit) at 15-20 days interval.

Chhattisgarh

Rainfall situation

The state as a whole has received 416 mm of rainfall during 01 June to 19 July 2018, which is equal to the normal rainfall of the same period. The extended range weather forecast provided for next two weeks is above normal (week-1) and below normal (week-2).

- Farmers are advised for transplanting of rice crop wherever irrigation facilities are available.
- SRI method nursery can be prepared in secure place and use seed rate @ 5-8 kg per hectare. Maintain a spacing of 20X25 cm (row to row) and 25X25 cm (plant to plant).
- Ensure proper drainage in ginger and turmeric.

Gujarat

During 01 June to 19 July 2018, Saurashtra & Kutch region has received 221 mm rainfall (7% excess) and Gujarat region has received 365 mm (7% excess). The extended range weather forecast provided for next two weeks is: normal over Saurashtra & Kutch region and above normal over Gujarat region during week-1; below normal over both the subdivisions during week-2.

- Many parts of the state have received sufficient rainfall for undertaking sowing of crops, which were in deficient to large deficient condition few days before. Farmers may go for sowing of short duration crops. Also in case of failure of first crop due to long dry spell, sowing of following crops is advised as mid-season correction.
 - Sorghum grain purpose : GJ-38, GJ-39, GJ-40 and GJ-41
 - Sorghum fodder purpose : CSH-6, GFS-4, GFS-5 and GAFS-11

- Sunflower : EC-68414, Modern GS-1, 2 & 3
- Sesame : Gujarat sesame –1, 2, 3 & 4
- Castor : GAUCH-1, GCH-2, GCH-4, 5, 6 & GCH-7
- Avoid irrigation, spraying and fertilizer application for 2-3 days as wide spread rainfall is forecasted.

Bihar

Rainfall situation

The state as a whole has received 205 mm of rainfall during 01 June to 19 July 2018, which is 47% deficit. The extended range weather forecast provided for next two weeks is normal for both the weeks.

- Kharif maize: The crop is 30-35 days old. It is advised to do the earthing-up operation after removing weeds from the fields and application of 40 kg urea per hectare is suggested, after the forecasted spell of rainfall.
- Rice: Farmers having irrigation facility and seedlings ready are advised to transplant rice in the low land areas.
- Sowing of yam bean is advised in upland areas. *Rajendra Mishrikand-1* and *Rajendra Mishrikand-2* varieties are recommended for sowing in North Bihar.

West Bengal

Rainfall Situation

Rainfall received over Sub-Himalayan West Bengal (SHWB) is 725 mm rainfall (17% deficit) and Gangetic West Bengal is 331 mm (26% deficit) during 01 June to 05 July 2018. The extended range weather forecast provided is: normal and excess over Gangetic WB during week-1, 2 respectively; below normal and normal over SHWB week-1, 2 respectively.

- Jute: Complete the intercultural operations. In case of late sown crop, attack of Bihar hairy caterpillar and semilooper may be expected. For both insects, apply Endosulphan @1.5 ml per litre of water. For production of jute seed, prune the top portion to get more branches for getting good amount of Jute-seed.
- Aman Rice: As there is forecast of light to heavy rainfall along with full cloudy condition, complete the sowing operation and apply fertilizers as per the guidelines recommended in the previous week. Farmers, who have sown early, prepare the main land for transplanting operations.
- Pointed gourd and Bottle gourd: In the prevailing weather condition, attack of fruit-rot due to fungus may be prevalent in the zone. Remove the infected fruits touching the land. As suggested last week, spray Blitox (4 gm per litre) or Blue-copper oxide. Beetle-vine: Attack of different diseases may occur during this period. Clear the basal portion of the vine. Ensure ample air-circulation inside the canopy, so that the leaves become dry. That will reduce the disease attack. To control leaf and collar-rot, apply Blitox (4 gram per litre of water) thoroughly to the plant.
- Cauliflower: Cultivation of early cauliflower may be started. Collect improved varieties of cauliflower-seed like, Kanwari, Jowhar, Moti, Early Patna etc. and varieties of tomato like Pusa Rubi, Pusa Early, S-2, Roma Super etc.

Rajasthan

Rainfall Situation

Rainfall received over West Rajasthan and East Rajasthan is 108 mm rainfall (16% excess) and 221 mm (17% excess), respectively during 01 June to 19 July 2018. The extended range weather forecast provided is: above normal for both the subdivisions during week-1; normal over West Rajasthan and below normal over East Rajasthan for week-2.

- Ensure proper drainage as above normal rainfall is forecasted over both the subdivisions during week-1.
- Since sufficient soil moisture is available, farmers can go for sowing of maize, soybean, bajra, sorghum, groundnut within next 1-2 days. Recommended varieties for maize are Aravali Makka-1, Pratap Makka-3, Pratap Makka-5, Pratap Hybrid-1, Bio-9637 and for soybean: PK-472, JS-335, Pratap Soya-1, Pratap Soya-2, Pratap Raj Soya-24. Sorghum varieties: CSV-15, CSV-17, Pratap Jowar-1430, CSV-23.
- Farmers are advised for sowing of cluster bean, kharif pulses and sesame. Recommended varieties are: cluster bean (RGC-936, RGC-986, RGC-1017, RGC-1038), black gram (PU-31, RBU-38, KU-96-3), green gram (K-851, RMG-62) and sesame (RT-46, RT-125, RT-127, RT-346).

Assam

Rainfall Situation

Rainfall received over Assam is 570 mm rainfall (34% deficit) during 01 June to 19 July 2018. The extended range weather forecast provided is below normal during week-1 and above normal during week-2.

- As below normal rainfall is forecasted for next week, farmers are advised to wait for rain during week-2 for transplantation of *Sali* rice seedlings.
- Pineapple: Farmers can plant the sucker, slip and crown of pine apple at a distance of 30, 60 and 90 cm from plant to plant, row to row & bed to bed respectively. Apply 24g urea, 12g SSP and 16g MOP per plant. Treat the planting materials by dipping in Mancozeb 2g/l to protect from bud rot.
- Poultry: Poultry growers can use the hybrid variety of chicken like BV 300, Babcock, BV 380 etc for egg production purpose.

Punjab

Rainfall Situation

Punjab has received 183 mm of rainfall during 01 June to 19 July 2018, which is 18% excess. The extended range weather forecast provided for next two weeks is above normal for both the weeks.

- Farmers are suggested to wait for transplanting of basmati varieties CSR 30, Basmati 370, Basmati 386 and Pusa Basmati 1509, as above normal rainfall is forecasted for next two weeks.
- Ensure proper drainage

Jammu

Rainfall Situation

Rainfall received during 01 June to 19 July 2018 over Jammu is 197 mm, which is 17% excess. The extended range weather forecast provided for next two weeks over Jammu is above normal for both the weeks.

- As above normal rainfall is forecasted for next two weeks, withhold application of fertilizers, plant protection chemicals etc.
- Ensure proper drainage to field crops

Uttar Pradesh

Rainfall Situation

Rainfall received during 01 June to 19 July 2018 over meteorological subdivisions of UP is: East UP - 148 mm (49% deficit); West UP – 124 (44% deficit). The extended range weather forecast provided for next two weeks over both the subdivisions is normal, except over West UP during week-1 (above normal).

Agromet advisory for central part of UP is as follows:

- Following intercropping systems can be adopted in light soils for efficient use of soil and water resources. Pearl millet + Black gram in 2:4 row proportion; Pearl millet + Pigeonpea in 2:1 row proportion or Pigeon pea + Sesame in 1:2 or 2:4 row proportions on up land well drained fields.

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